this permit originally issued to General Energy/ then altered by Emily Energy/ [illegible]

Missouri Oil and Gas Council

Form OGC-3

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

APPLICATION TO DRILL ☑ DEEPEN ☐ PLUG BACK ☐

for an oil well ☑ or gas well ☐

NAME OF COMPANY OR OPERATOR Town Oil Co. DATE 12/6/85

Route 4 (Address) Paola (City) KS 66071 (State)

DESCRIPTION OF WELL AND LEASE

Name of lease	Well number	Elevation (ground)
Jack Beary	54 C	1066

WELL LOCATION (give footage from section lines)

546.46 ft. from (N) (S) sec. line 1652.25 ft. from (E) (W) sec. line

WELL LOCATION Section 4 Township 46N Range 33W County CASS

Nearest distance from proposed location to property or lease line: 385 feet

Distance from proposed location to nearest drilling, completed or applied for well on the same lease: 190.73 feet

Proposed depth	Drilling contractor, name & address	(Rotary) or Cable Tools	Approx. date work will start
650			see note

Number of acres in lease: 24.5

Number of wells on lease, including this well, completed in or drilling to this reservoir: _____

Number of abandoned wells on lease: _____

If lease, purchased with one or more wells drilled, from whom purchased: Name _____ Address _____

No. of Wells: producing _____ injection _____ inactive _____ abandoned _____

Status of Bond

Single Well ☐ Amt. _____ Blanket Bond ☑ Amt. 20,000 ☑ ON FILE ☐ ATTACHED

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone) use back of form if needed.

Proposed casing program:

amt.	size	wt /ft.	cem.
650	4"	10.4	yes
20	7¾"	22	yes

Approved casing -- To be filled in by State Geologist

amt	size	wt./ft	cem.
✓	✓	✓	✓
	✓	✓	✓

I, the undersigned, state that I am the _____ of the _____ (company), and that I am authorized by said company to make this report, and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature Rusty Town

Permit Number: 20124

Approval Date: 12/6/85

Approved By: Wallace B. Hunt BWH

Note: This Permit not transferable to any other person or to any other location.

Remit two copies to: Missouri Oil and Gas Council P.O. Box 250 Rolla, Mo. 65401

One will be returned for driller's signature

☑ Drillers log required

☑ E-logs required if run

☑ Core analysis required if run

☑ Drill stem test info. required if run

☐ Samples required

☑ Samples not required

WATER SAMPLES REQUIRED @

_____

_____

RECEIVED

DEC 16 1985

OIL & GAS COUNCIL

Approval of this permit by the Oil and Gas Council does not constitute endorsement of the geologic merits of the proposed well nor endorsement of the qualifications of the permittee.

3/12/82

MISSOURI OIL AND GAS COUNCIL

Form OGC - 3

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

APPLICATION TO DRILL ☑ DEEPEN ☐ PLUG BACK ☐

NAME OF COMPANY OR OPERATOR General Energy INC. of Linn Co DATE 12-15-80

Box 216 (Address) Mound City (City) KANSAS (State) 66056

DESCRIPTION OF WELL AND LEASE

Name of lease	Well number	Elevation (ground)
JACK BEARY	54C	1066.

WELL LOCATION (give footage from section lines)

546.46 ft. from (N) (S) sec. line 1652.25 ft. from (E) (W) sec. line

WELL LOCATION: Section 4 Township 46 Range 33 County CASS

Nearest distance from proposed location to property or lease line: 385 feet

Distance from proposed location to nearest drilling, completed or applied – for well on the same lease: 1901.73 feet

Proposed depth:	Rotary or Cable tools	Approx. date work will start
650	ROTARY	12-20-80

Number of acres in lease: 24.5

Number of wells on lease, including this well, completed in or drilling to this reservoir: 0

Number of abandoned wells on lease: 0

If lease, purchased with one or more wells drilled, from whom purchased: Name _____ Address _____

No. of Wells: producing _____ inactive _____ abandoned _____

Status of Bond

Single Well ☐ Amt. _____ Blanket Bond ☑ Amt. 20,000 ☑ ON FILE ☐ ATTACHED

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone) use back of form if needed.

Proposed casing program

amt.	size	wt./ft.	cem.
650	4	10.4	yes
20	7¼	22	yes

Approved casing – To be filled in by State Geologist

amt.	size	wt./ft.	cem.

I, the undersigned, state that I am the president of the General Energy INC (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature Gilbert McGaver

Permit Number: 20124

Approval Date: 12/18/80

Approved By: Wallace B. Hare

Note: This Permit not transferable to any other person or to any other location.

Remit two copies to: Missouri Oil and Gas Council
P.O. Box 250 Rolla, Mo. 65401
One will be returned for driller's signature

☐ SAMPLES REQUIRED

☑ SAMPLES NOT REQUIRED

DEC 18 1980

MO. OIL & GAS COUNCIL

WATER SAMPLES REQUIRED @: _____

Approval of this permit by the Oil and Gas Council does not constitute endorsement of the geologic merits of the proposed well nor endorsement of the qualifications of the permittee.

MISSOURI OIL AND GAS COUNCIL

Form OGC-5

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

New Well [X] Work-Over [ ] Deepen [ ] Plug Back [ ] Same Reservoir [ ] Different Reservoir [ ] Oil [X] Gas [ ] Dry [ ]

Owner	Address
Emery Energy, Inc.	Box 519, Osawatomie, Kansas 66064
Lease Name	**Well Number**
Jack Beary Lease	C-54

Location: 546.46 ft. FNL 1652.25 Ft. FEL — Sec. — TWP-Range or Block & Survey: Sec. 4 Twp. 46N Range 33W

County	Permit number (OGC3 number)
Cass	20124

Date spudded	Date total depth reached	Date completed, ready to produce	Elevation (DF, RKB, RT or Gr.) feet	Elevation of casing hd. flange feet
12-23-80	1-6-81	2-17-81	1066 Gr.	Same as sur. ele.

Total depth	P. B. T. D
640 ft.	630.60

Producing interval (s) for this completion	Rotary tools used (interval)	Cable tools used (interval)
556-576	From 0 to T.D. Drilling Fluid used water, air	From ..... to None

Was this well directionally drilled?	Was directional survey made?	Was copy of directional survey filed?	Date filed
no	no	no	no

Type of electrical or other logs run (list logs filed with the State Geologist): Gamma Ray, Neutron, CCL — Date filed: 5/25/1981

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb ft.)	Depth set	Sacks cement	Amt pulled
surface	9 in.	7 in.	35	21.583	70	
producing	6.25 in.	4 in.	10.6	630.60		

TUBING RECORD

Size	Depth set	Packer set at
2.375 in.	551 ft.	none ft.

LINER RECORD

Size	Top	Bottom	Sacks cement	Screen (ft.)
N/A in.	N/A ft.	N/A ft.	N/A	N/A

PERFORATION RECORD

Number per ft.	Size & type	Depth Interval
1.67	3½ glass	556-576

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Am't. & kind of material used	Depth Interval
water gel ------	
sand 20-40 20	556-576
sand 10-30 10	

INITIAL PRODUCTION

Date of first production: 2-26-81

Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:): No record-see later production report

Date of test	Hrs. tested	Choke size	Oil prod. during test	Gas prod. during test	Water prod. during test	Oil gravity
no			bbls.	MCF	bbls.	API (Corr.)

Tubing pressure	Casing pressure	Cal'ted rate of Production per 24 hrs	Oil	Gas	Water	Gas—oil ratio
			bbls.	MCF	bbls	

Disposition of gas (state whether vented, used for fuel or sold):

Method of disposal of mud pit contents:

CERTIFICATE: I, the undersigned, state that I am the Vice-President of the Emery Energy, Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Devon M. Hurst

Signature: Devon Hurst

Remit two copies: one will be returned.

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JUN 04 1981
MO. OIL & GAS COUNCIL

W00007

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
PENNSYLVANIAN SYSTEM			
KANSAS CITY			
Iola Ls.	0	40	White to light gray limestone
Chanute Sh.	40	106	Gray to green shales with gray limestone beds
Cement City Sh.	66	74	Blue, gray limestone
Belton Ss.	100	106	Sandstone
Cherryvale Sh.	106	140	Gray, blue shales
Dennis Ls.			
Winterset Sh.	140	191	Gray, blue coarse limestone
Stark Sh.	191	196	Black, fissile shale
Swope Ls.			
Bethany Falls Ls.	196	217	Gray, fine to coarse limestone
Hush puckney Sh.	217	220	Black, fissile shale
Hertha Ls.	220	232	Gray to blue limestone
PLEASANTON	232		Gray, green shales
Knobtown Ss.			sand
Dawson Coal Hor.	363	366	Black, fissile, slaty shale
HENRIETTA	412	519	
Alamont	412	434	Gray brown, fine grained limestone with gray shale
Pawnee	434	470	Fine grained, light gray limestone
Peru Ss.	447	455	Sand
Myrick Sta. Ls.	466	470	Gray to brown limestone
Anna Sh.	470	475	Coal to black fissile shale
Fort Scott	475	519	Gray to green shales and limestone
Englevale Ss.	475	499	Fine to medium grained channel sandstone
CHEROKEE	519	---	Gray to dark shales
Upper Cherokee			
Upper Squirrel	520	531	Fine to medium grained sandstones
Lower Squirrel	555	570	Fine to medium grained sandstones
Bevier Coal Hor.	---	---	Black coal
Lower Cherokee			
Burbank Ss.			Sandstone, irregular
Bartlesville Ss.	570	640 T.D.	Shale, sandy shale, thin sandstone
Core # 1	445	465	Core # 4 562-582
Core # 2	470	485	Core # 5 582-602
Core # 3	542	562	

*Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well if available.

OILFIELD RESEARCH LABORATORIES

LOG

Name Emery Energy, Inc. Lease Beary Well No. 54-C

Depth Interval, Feet	Description
	UPPER SQUIRREL SAND
445.0 - 447.7	Light brown sandstone.
447.7 - 451.0	Light brown and gray laminated sandstone and shale.
451.0 - 454.2	Dark brown and gray laminated sandstone and shale.
454.2 - 465.0	Gray shale.
470.0 - 470.3	Coal.
470.3 - 471.8	Gray shale.
471.8 - 473.0	Grayish light brown slightly calcareous shaly sandstone.
473.0 - 474.0	Brown slightly calcareous sandstone.
474.0 - 479.9	Light brown and gray laminated slightly calcareous sandstone and shale.
479.9 - 485.0	Gray laminated sandstone and shale.
	LOWER SQUIRREL SAND
542.0 - 548.7	Grayish light brown shaly sandstone.
548.7 - 549.2	Brown sandstone.
549.2 - 550.4	Grayish light brown shaly sandstone.
550.4 - 551.9	Brown slightly calcareous sandstone.
551.9 - 553.0	Grayish light brown shaly sandstone.
553.0 - 554.5	Brown slightly calcareous sandstone.
554.5 - 558.6	Brown and gray laminated slightly calcareous sandstone and shale.
558.6 - 559.4	Grayish light brown shaly sandstone.
559.4 - 568.6	Dark brown sandstone.
568.6 - 570.9	Brown and gray laminated slightly calcareous sandstone and shale.

LOG

570.9 - 571.1	Hard gray limestone.
571.7 - 576.4	Brown slightly calcareous sandstone.
576.4 - 577.0	Grayish light brown shaly sandstone.
580.0 - 581.4	Grayish light brown very shaly sandstone.
581.4 - 582.8	Brown sandstone.
582.8 - 583.9	Brown and gray laminated sandstone and shale.
583.9 - 585.4	Gray sandy shale.
585.4 - 586.7	Brown slightly calcareous sandstone.
586.7 - 588.4	Grayish brown calcareous conglomeratic shaly sandstone.
588.4 - 589.5	Hard gray limestone.
589.5 - 602.0	Grayish light brown slightly calcareous sandstone.

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1

Company Emery Energy, Inc. Lease Beary Well No. 54-C

Sample No.	Depth, Feet	Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.
			Oil	Water	Total		
		UPPER SQUIRREL SAND					
1	445.5	15.4	22	70	92	263	*
2	446.6	22.5	19	63	82	332	74.
3	447.6	20.3	18	78	96	284	13.
4	448.5	18.0	21	75	96	293	0.58
5	450.4	18.2	14	80	94	198	0.60
6	451.2	22.1	38	54	92	652	30.
7	452.3	22.5	40	40	80	698	101.
8	453.2	19.0	47	47	94	693	Imp.
9	472.6	18.2	52	30	82	734	0.95
10	473.5	20.0	51	40	91	791	57.
11	474.5	18.4	49	42	81	700	6.3
12	475.8	18.3	50	34	84	710	32.
13	477.5	14.3	45	35	80	499	3.1
		LOWER SQUIRREL SAND					
14	542.5	16.3	21	72	93	266	Imp.
15	544.8	18.1	25	71	96	351	Imp.
16	545.6	18.2	27	67	94	381	Imp.
17	547.4	14.5	25	70	95	281	4.2
18	548.9	15.4	12	82	94	143	48.
19	550.6	25.1	43	22	65	837	121.
20	551.2	25.1	51	18	69	993	101.
21	553.2	24.0	55	23	78	1024	130.
22	554.4	21.9	43	31	74	731	43.
23	555.7	20.1	49	39	88	764	50.
24	556.8	25.3	53	16	69	1040	160.
25	557.5	20.5	29	57	86	461	158.
26	558.5	19.6	55	35	90	836	105.
27	559.6	25.8	50	19	69	1001	188.
28	560.4	24.5	44	28	72	836	20.
29	561.7	24.4	59	26	85	1117	203.
30	562.5	25.0	51	24	75	989	314.
31	563.5	23.1	47	28	75	842	208.
32	564.6	22.4	56	31	87	973	335.
33	565.5	24.9	50	16	66	966	203.
34	566.6	20.6	53	32	85	847	200.
35	567.5	21.3	45	33	78	744	140.
36	568.5	26.8	62	17	79	1289	119.
37	569.7	23.0	47	41	88	839	296.
38	571.8	6.8	24	67	91	127	75.
39	573.7	21.8	37	39	76	626	141.
40	576.2	22.4	36	47	83	626	99.
41	581.8	24.6	42	45	87	802	105.
42	582.7	20.1	17	17	94	265	73.
43	583.5	22.5	41	44	85	716	46.

Oilfield Research Laboratories

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1

Company Emery Energy, Inc. Lease Beary Well No. 54-C

Sample No.	Depth, Feet	Porosity Percent	Percent Saturation			Oil Content Bbls. / A Ft.	Perm., Mill.
			Oil	Water	Total		
44	585.6	21.3	32	60	92	529	74.
45	586.5	17.8	27	71	98	373	20.
46	589.7	24.9	41	39	80	792	149.
47	591.4	25.0	30	54	84	582	*
48	593.5	19.2	38	35	73	566	37.
49	595.1	21.8	20	42	62	82	50.
50	596.8	22.0	33	28	61	563	19.
51	598.7	21.8	52	28	80	879	96.
52	600.2	22.4	39	28	67	678	79.
53	601.3	21.2	33	56	89	543	22.

NOTE: * Permeability samples were unobtainable.

Logs sent 4-23-81 Emc

OILFIELD RESEARCH LABORATORIES

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

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MO. OIL & GAS COUNCIL

Company Emery Energy Lease Beary Well No. 54-C

Sample No.	Depth, Feet	Effective Porosity, Percent	Percent Saturation			Oil Content Bbls./A.Ft.	Perm. Mill.	Feet of Sand		Total Conte
			Oil	Water	Total			Feet	Cum. Feet	
1	445.5	15.4	22	70	92	263	*			
2	46.6	22.5	19	63	82	332	74.			
3	47.6	20.3	18	78	96	284	13.			
4	48.5	18.0	21	75	96	293	0.58			
5	50.4	18.2	14	80	94	198	0.60			
6	51.2	22.1	38	54	92	652	30.			
7	52.3	22.5	40	40	80	698	101.			
8	53.2	19.0	47	47	94	693	Imp.			
9	72.6	18.2	52	30	82	724	0.95			
10	73.5	20.0	51	40	91	791	57.			
11	74.5	18.4	49	42	81	700	6.3			
12	75.8	18.3	50	34	84	710	32.			
13	477.5	14.3	45	35	80	499	3.1			
14	542.5	16.3	21	72	93	266	Imp.			
15	44.8	18.1	25	71	96	351	"			
16	45.6	18.2	27	67	94	381	"			
17	47.4	14.5	25	70	95	281	4.2			
18	48.9	15.4	12	82	94	143	48.			
19	50.6	25.1	43	22	65	837	121.			
20	51.2	25.1	51	18	69	993	101.			
21	53.2	24.0	55	23	78	1024	130.			
22	54.4	21.9	43	31	74	731	43.			
23	55.7	20.1	49	39	88	764	50.			
						1040	160.			

2

OILFIELD RESEARCH LABORATORIES

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Emery Energy Lease Beary Well No. 54-C

Sample No.	Depth, Feet	Effective Porosity, Percent	Percent Saturation			Oil Content Bbls./A.Ft.	Perm. Mill.	Feet of Sand		Total Oil Content
			Oil	Water	Total			Feet	Cum. Feet	
25	557.5	20.5	29	57	86	461	158.			
26	58.5	19.6	55	35	90	836	105.			
27	59.6	25.8	50	19	69	1001	188.			
28	60.4	24.5	44	28	72	836	20.			
29	61.7	24.4	59	26	85	1117	203.			
30	62.5	25.0	51	24	75	989	314.			
31	63.5	23.1	47	28	75	842	208.			
32	64.6	22.4	56	31	87	973	335.			
33	65.5	24.9	50	16	66	966	203.			
34	66.6	20.6	53	32	85	847	200.			
35	67.5	21.3	45	33	78	744	140.			
36	68.5	26.8	62	17	79	1289	119.			
37	69.7	23.0	47	41	88	839	296.			
38	71.8	6.8	24	67	91	127	75.			
39	73.7	21.8	37	39	76	626	141.			
40	76.2	23.4	36	47	83	626	99.			
41	81.8	24.6	42	45	87	802	105.			
42	82.7	20.1	17	17	94	265	73.			
43	83.5	22.5	41	44	85	716	46.			
44	85.6	21.3	32	60	92	529	74.			
45	86.5	17.8	27	71	98	373	20.			
46	89.7	24.9	41	39	80	792	149.			
47	91.4	25.0	30	54	84	582	*			
48	593.5	19.2	38	35	73	566	37.			

3

OILFIELD RESEARCH LABORATORIES

RESULTS OF SATURATION & PERMEABILITY TESTS

TABLE 1-B

Company Emery Energy Lease Beary Well No. 54-C

Sample No.	Depth, Feet	Effective Porosity, Percent	Percent Saturation			Oil Content Bbls./A.Ft.	Perm. Mill.	Feet of Sand		Total C Conter
			Oil	Water	Total			Feet	Cum. Feet	
49	595.1	21.8	20	42	62	82	50.			
50	96.8	22.0	33	28	61	563	19.			
51	98.7	21.8	52	28	80	879	96.			
52	600.2	22.4	39	28	67	678	79.			
53	601.2	21.2	33	56	89	543	22.			

EMERY ENERGY, INC.

225 North State Street
Salt Lake City, Utah 84103
(801) 531-8770

June 14, 1984

Missouri Department of Natural Resources
P.O. Box 250
Rolla, MO. 65401
Attn: Mr. Bruce W, Netzler, Geologist

Dear Mr. Netzler,

I am in receipt of your letter requesting an interpretation of the log reports shbmitted to your office in 1981 by our company covering wells on the Beary Lease, Cass County, Missouri. In 1982-83 we basically shut down our operations in the Kansas/Missouri area and let the people go who were responsible for both the drilling of these wells and the Government reports. I have lookedover the logs and our in-house geologist here in Salt Lake has examined it also but we are unable to come up with the answers. The fact is that no one is around who was there to observe the way the formations lay, so I dont know how we can clear up the matter.

If 3½ years hadnt passed I'd have confidence that maybe we could tack something down, but now I believe it is too late.

I'm sorry I was'nt able to help you in getting this cleared up. Please feel free to call if you have any other questions.

Yours truly,

Ron J. Hollberg, III
Production Dept.

RJH/rh

OILFIELD RESEARCH LABORATORIES
536 NORTH HIGHLAND - CHANUTE, KANSAS 66720 - PHONE (316) 431-2650

January 19, 1981

Emery Energy, Inc.
P. O. Box 519
Osawatomie, Kansas 66064

Gentlemen:

Attached hereto are the results of tests run on the rotary cores taken from the Beary Lease, Well No. 54-C, located in T-46N, R-33W in Cass County, Missouri.

The cores were sampled and sealed in plastic by a representative of the client and submitted to our laboratory on January 3, 1981.

Your business is greatly appreciated.

Very truly yours,

OILFIELD RESEARCH LABORATORIES

Sanford A. Michel

Sanford A. Michel

SAM/kas

5 c to Osawatomie, Kansas